WHAT IS CLAIMED IS:

1. A rubber composition comprising:

based on 100 parts by weight of diene rubber (A),

- 5 2 to 20 parts by weight of short fiber (B) having an average fiber diameter of 10 to 100 μm and average fiber length of 0.01 to 4 mm,
 - 1 to 10 parts by weight of particles (C) having a Moh's hardness of at least 5 and average particle size of at most 500 μm , and
 - 1 to 15 parts by weight of a starch/plasticizer composite material (D).

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- 2. The rubber composition of Claim 1, further comprising 4 to 12 % by weight of a silane coupling agent (E) based on the total weight of said starch/plasticizer composite material (D).
- 3. A pneumatic tire having a tread comprising the rubber composition of Claim 1.
 - 4. A pneumatic tire having a tread comprising the rubber composition of Claim 2.